

The Importance of Influenza Surveillance – Focus on the 2018-19 Season



Elena Todorova, DNP, FNP-C, Clinical Associate Professor

School of Health and Human Services (SHHS) at National University (NU), USA

Background

Influenza is an acute respiratory illness caused by influenza A or B viruses that occurs in outbreaks and epidemics worldwide, mainly during the winter season.

Signs and symptoms of upper and/or lower respiratory tract involvement are present, along with indications of systemic illness such as fever, headache, myalgia, and weakness.

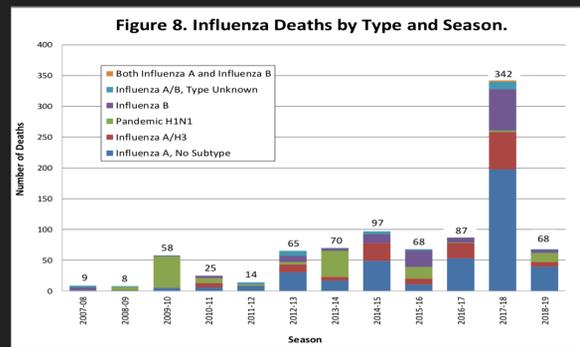
Although acutely debilitating, influenza is a self-limited infection in the general population, however, it is associated with increased morbidity and mortality in high-risk populations.

Transmitted through sneezing and coughing; Recent study suggested that it may also be possible to transmit influenza by small aerosols that are released into the air during breathing (these travel more than 6 feet).¹

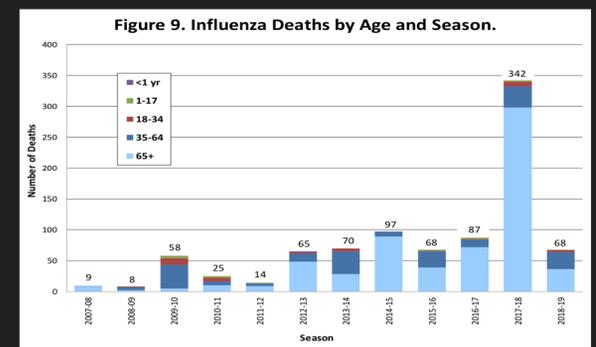
The typical incubation period for influenza is one to four days.²

Viral shedding can be detected 24 to 48 hours before illness onset but is generally at much lower titers than during the symptomatic period.³

Deaths by Type



Deaths by Age and Season



Treatment

Three classes of antiviral drugs are available for the treatment of influenza⁴

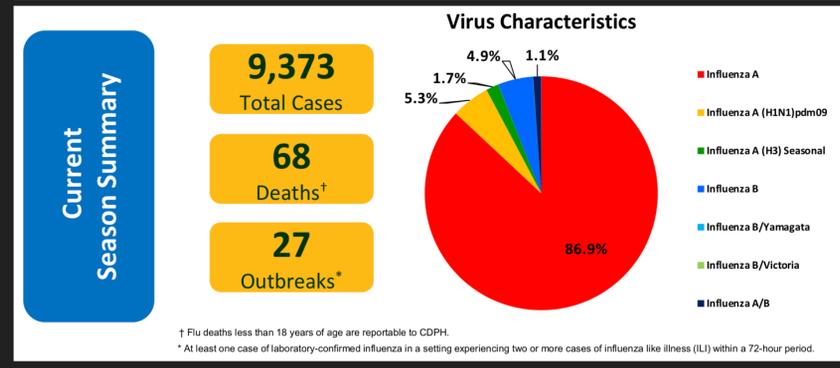
- The neuraminidase inhibitors, zanamivir, oseltamivir, and peramivir, which are active against both influenza A and B.
- The selective inhibitor of influenza cap-dependent endonuclease, baloxavir, which is active against influenza A and B.
- The adamantanes, amantadine and rimantadine, which are only active against influenza A.

oseltamivir
Tamiflu

baloxavir
Xofluza

Due to a marked increase in resistant isolates, the United States Centers for Disease Control and Prevention (CDC) recommends that adamantanes **not** be used in the United States for the treatment of influenza, except in selected circumstances

Results



† Flu deaths less than 18 years of age are reportable to CDPH.
* At least one case of laboratory-confirmed influenza in a setting experiencing two or more cases of influenza like illness (ILI) within a 72-hour period.

Figure 12. Percent of Emergency Department Visit Chief Complaints for Cough, Cold, Fever, or Respiratory Symptoms by Week.

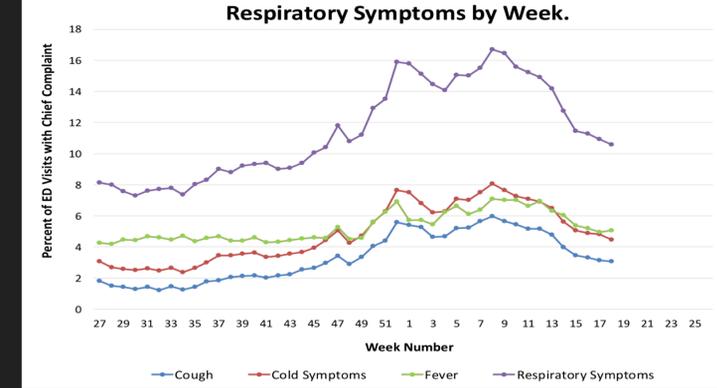
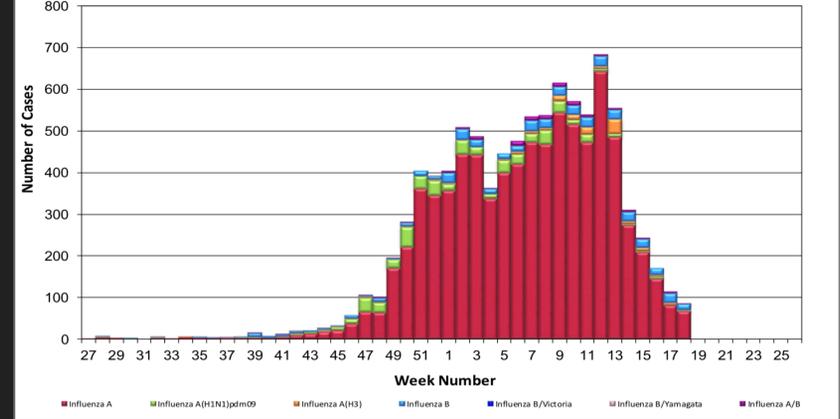


Table / Chart formatting is only an example. Always use whatever formatting best organizes your data.

Recommendations

- Vaccinations
- Handwashing
- Patient education
- Improve reporting of laboratory-positive influenza detections to the County Epidemiology
- Lab screening confirmation vs empiric treatment

Figure 3. San Diego County Influenza Detections by Type and Week of Report, 2018-19 FYTD (N=9,373).



Conclusions

A final influenza season summary for the 2018-2019 season will be available in July, 2019 and the weekly *Influenza* reports will resume in October, 2019 for the next season.

Local providers are encouraged to report laboratory-positive influenza detections to the County Epidemiology

Acknowledgements

The San Diego County Epidemiology Program, Immunization Program and the Public Health Laboratory, who conduct year-round influenza surveillance

Reporting Health Providers